

AD-A113 886

ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2
20491A ASSAULT BREAKER, MISSILE NUMBER 0005, ROUND NUMBER M362,--ETC(U)
SEP 81 D C KELLER
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DR 1227

Sep 81

AD A11386

METEOROLOGICAL DATA REPORT

20491A Assault Breaker

Missile Number 0005

Round Number M3G2

25 September 1981

by

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AVN Number 349-9568

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 2049A Assault Breaker, Missile Number 0005, Round Number M3G2 presented in tabular form.		

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INTRODUCTION

20491A Assault Breaker, Missile Number 0005, Round Number M3G2, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0900 MDT 25 September 1981. The scheduled launch time was 0900 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from Pilot-balloon observations at:

SITE AND ALTITUDE

LC-33	6000 ft	0854 MDT
LC-33	9000 ft	0913 MDT

(2) Air structure data (rawinsonde) were collected at the following Met Sites.

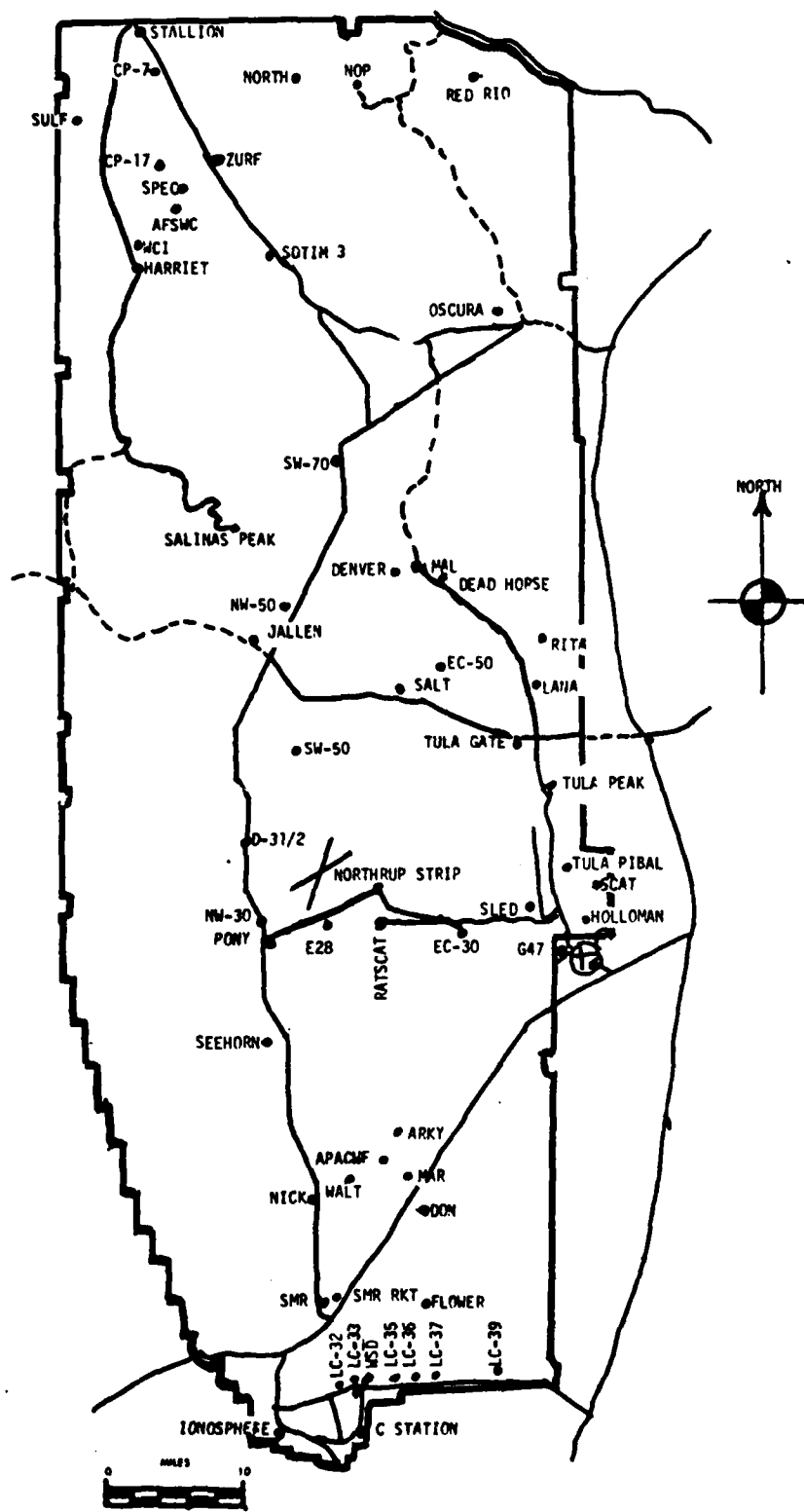
SITE AND TIME

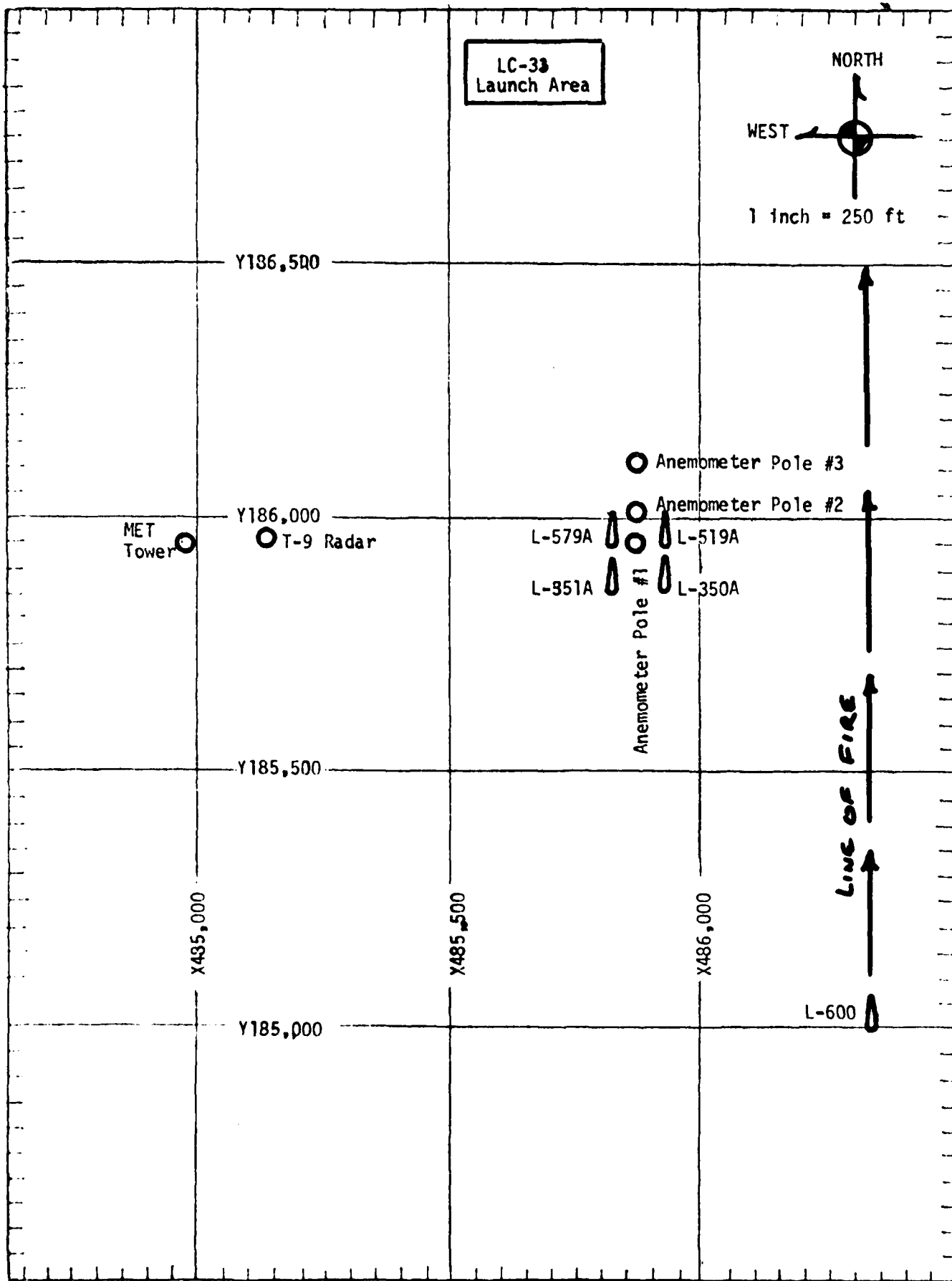
Jallen	0630 MDT
Jallen	0745 MDT
LC-37	0800 MDT
Holloman	0800 MDT
WSD	0900 MDT
Jallen	0900 MDT

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	



WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

TABLE 1									
STATION LC-33									
DATE 25		Sep		81		X= 484,982.64		Y= 185,957.73 H= 3983.00	
DAY		MONTH		YEAR					
TIME M D I	PRESSURE mbs	TEMPERATURE OF °C	DEW POINT OF °C	RELATIVE HUMIDITY %	DENSITY gm/m ³	DIRECTION degs	WIND SPEED kts	CHARACTER kts	VISIBIL- ITY
0900	882.2	22.3	12.8	55	1033	180	08		30

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	HGT	AMT	HGT	AMT	HGT	
HAZE	4	CU 5000					

PSYCHROMETRIC COMPUTATION

TIME:	MDT	0900	
DRY BULB TEMP.		22.3	
WET BULB TEMP.		16.1	
WET BULB DEPR.		6.2	
DEW POINT		12.8	
RELATIVE HUMID.		55	

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	142	04	T -30	193	05	T -30	160	MISG
T-20	142	05	T -20	196	04	T -20	153	MISG
T-10	128	04	T -10	201	04	T -10	153	MISG
T0.0	128	03	T 0.0	201	04	T 0.0	153	MISG
T+10	135	04	T +10	189	05	T +10	161	MISG

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	162	04	T-30	170	06
T-20	159	04	T-20	171	05
T-10	165	05	T-10	177	05
T0.0	174	05	T0.0	174	05
T+10	176	06	T+10	171	06

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	165	05	T-30	151	04
T-20	174	05	T-20	154	08
T-10	173	06	T-10	159	09
T0.0	164	06	T0.0	151	08
T+10	168	06	T+10	156	07

PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33 DATE 25 Sep 81 TIME 0854 MDT

COORDINATES (WSTM) X= 486,872.00 Y= 184,146.75 H= 3981.15

HEIGHTS ARE METERS AGL X OR FEET AGL .

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
SFC	180	08
200	MISG	MISG
400	MISG	MISG
600	MISG	MISG
800	190	12
1000	200	12
1200	205	11
1400	205	10
1600	210	09
1800	210	08
2000	210	06
2200	225	04
2400	235	04
2600	245	03
2800	245	03
3000	240	03
3200	230	03
3400	230	03
3600	225	03
3800	220	03
4000	225	04
4200	230	05
4400	230	06
4600	230	07
4800	230	07
5000	230	08
5200	230	09
5400	230	10
5600	235	11
5800	230	11

[illegible][illegible]

PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33

DATE 25 Sep 81

TIME 0913 MDT

COORDINATES (WSTM)

$\chi = 486,872.00$

$$Y = 184,146.75$$

3981.15

HEIGHTS ARE METERS AGL y OR FEET AGL .

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
SFC	180	08
200	MISG	MISG
400	MISG	MISG
600	MISG	MISG
800	MISG	MISG
1000	MISG	MISG
1200	190	11
1400	200	09
1600	220	08
1800	230	06
2000	245	05
2200	275	04
2400	305	03
2600	310	02
2800	285	03
3000	260	03
3200	230	03
3400	230	03
3600	235	03
3800	240	04
4000	250	04
4200	245	05
4400	240	06
4600	235	07
4800	225	07
5000	225	09
5200	225	10
5400	225	11
5600	225	12
5800	225	13

[illegible][illegible]

AIMING COMPUTER MET MESSAGE

25 September 1982

JAL 0630 MDT

METCM1332065

251250124879

00640002 28590879

01076005 29130868

02499006 29400843

03415015 29270805

04421017 28920759

05439020 28460715

06440030 28020674

07444029 27620633

08443022 27230595

09422015 26880559

10446019 26700525

11444027 26400492

12438025 25870446

13442029 25130390

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 61 0630 MDT
ASCENSION NO. 153

SIGNIFICANT LEVEL DATA

260030153

JALLEN

TABLE 7

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
878.5	4051.0	11.7	5.1	64.0
871.6	4270.1	17.2	9.4	60.0
850.0	4977.3	19.5	8.8	50.0
827.6	5733.7	20.2	7.9	45.0
750.0	8496.8	14.4	2.0	45.0
700.0	10393.2	8.7	-1.7	48.0
662.2	11892.9	4.8	-2.7	58.0
573.0	15712.1	-3.8	-15.7	39.0
567.8	15948.6	-4.2	-16.8	31.0
533.4	17562.2	-6.3	-22.2	27.0
522.4	18098.4	-6.0	-22.3	26.0
500.0	19221.8	-8.4	-24.4	26.0
427.2	23174.2	-16.7	-31.2	27.0
400.0	24788.5	-20.5	-34.2	28.0
366.0	26930.7	-25.5	-38.6	28.0
347.6	28159.1	-26.8	-40.1	27.0

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 71 0630 MDT
ASCENSION NO. 153

UPPER AIR DATA
26R00JUL55
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 8

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	"IND DATA DIRECTION LEGRELS(TIN)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	878.5	11.7	5.1	64.0	1070.3	658.8	300.0	1.9	1.000280
4500.0	864.5	17.9	0.2	56.7	1029.3	666.4	276.5	2.4	1.000282
5000.0	849.3	19.5	0.8	49.8	1005.8	668.2	252.7	5.3	1.000274
5500.0	834.5	20.0	0.2	46.5	986.8	668.7	246.1	8.5	1.000268
6000.0	819.8	19.6	7.4	45.0	970.8	668.2	241.4	11.6	1.000262
6500.0	805.3	18.6	6.4	45.0	957.3	666.9	234.2	14.5	1.000256
7000.0	791.1	17.5	5.5	45.0	943.9	665.7	230.4	17.0	1.000251
7500.0	777.1	16.5	4.5	45.0	930.8	664.4	233.0	17.1	1.000246
8000.0	763.4	15.4	3.6	45.0	917.9	663.1	235.6	17.2	1.000240
8500.0	749.9	14.4	2.6	45.0	905.2	661.8	240.8	17.3	1.000236
9000.0	736.4	12.9	1.5	45.8	893.7	660.0	245.6	17.7	1.000231
9500.0	723.1	11.4	0.4	46.6	882.4	658.2	246.4	19.2	1.000226
10000.0	710.1	9.9	-0.8	47.4	871.3	656.4	247.0	20.8	1.000221
10500.0	697.2	8.4	-1.7	48.7	860.1	654.7	247.3	23.5	1.000217
11000.0	684.5	7.1	-2.0	52.0	848.3	653.2	247.5	26.1	1.000214
11500.0	671.9	5.8	-2.4	55.4	836.6	651.6	247.5	28.3	1.000211
12000.0	659.5	4.6	-3.1	57.5	825.0	650.1	247.7	29.7	1.000208
12500.0	647.1	3.4	-4.7	55.0	813.1	648.7	248.7	28.7	1.000202
13000.0	635.0	2.3	-6.4	52.5	801.3	647.3	249.9	27.3	1.000197
13500.0	623.1	1.2	-8.1	50.0	789.6	645.9	251.8	25.0	1.000193
14000.0	611.4	0.1	-9.8	47.5	778.2	644.5	251.8	23.1	1.000188
14500.0	599.9	-1.1	-11.5	45.0	766.9	643.1	248.2	21.9	1.000184
15000.0	588.7	-2.2	-13.2	42.5	755.8	641.7	244.0	20.3	1.000180
15500.0	577.6	-3.3	-14.9	40.1	744.8	640.3	239.0	18.4	1.000176
16000.0	566.7	-4.3	-18.9	30.9	733.5	639.1	237.7	16.8	1.000171
16500.0	555.8	-4.9	-19.9	29.6	721.2	638.3	241.9	15.2	1.000167
17000.0	545.1	-5.6	-21.0	28.4	709.2	637.5	246.7	15.7	1.000164
17500.0	534.7	-6.2	-22.0	27.2	697.3	636.7	250.4	18.2	1.000161
18000.0	524.4	-6.1	-22.3	26.2	683.5	636.9	251.0	20.8	1.000158
18500.0	514.3	-6.9	-23.1	26.0	672.3	636.0	250.3	23.5	1.000155
19000.0	504.3	-7.9	-24.0	26.0	662.0	634.7	249.7	25.3	1.000152
19500.0	494.5	-9.0	-24.9	26.1	651.7	633.4	249.2	26.8	1.000150
20000.0	484.7	-10.0	-25.7	26.2	641.4	632.1	249.2	26.5	1.000147
20500.0	475.2	-11.1	-26.6	26.3	631.3	630.8	249.2	25.9	1.000144
21000.0	465.8	-12.1	-27.5	26.4	621.4	629.6	248.3	24.9	1.000142
21500.0	456.6	-13.2	-28.3	26.6	611.6	628.3	247.3	24.2	1.000140
22000.0	447.6	-14.2	-29.2	26.7	602.0	627.0	245.0	24.8	1.000137
22500.0	438.8	-15.3	-30.1	26.8	592.6	625.7	245.0	25.6	1.000135
23000.0	430.2	-16.3	-30.9	27.0	583.3	624.4	245.3	26.5	1.000133
23500.0	421.6	-17.5	-31.8	27.2	574.2	623.1	246.4	27.2	1.000130

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 81 0630 MDT
ASCENSION NO. 153

UPPER AIR DATA
2600030153
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 8 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS	DIRECTION, DEGREES (T)	SPEED KNOTS	
24000.0	413.1	-18.6	-32.7	27.5	565.2	621.6	248.0	27.7	1.000128	
24500.0	404.7	-19.8	-33.6	27.8	556.4	620.2	249.2	28.1	1.000126	
25000.0	396.5	-21.0	-34.6	28.0	547.6	618.7	250.1	28.2	1.000124	
25500.0	388.4	-22.2	-35.6	28.0	538.9	617.3	249.6	28.5	1.000122	
26000.0	380.4	-23.3	-36.7	28.0	530.3	615.8	248.1	28.8	1.000120	
26500.0	372.6	-24.5	-37.7	28.0	521.9	614.4	248.1	29.1	1.000118	
27000.0	364.9	-25.6	-38.7	27.9	513.4	613.1	243.7	29.2	1.000116	
27500.0	357.4	-26.1	-39.3	27.5	503.8	612.4			1.000113	
28000.0	349.9	-26.6	-39.9	27.1	494.4	611.7			1.000111	

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 81
 ASCENSION NO. 153 0630 MDT

MANDATORY LEVELS
 2680030153
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE 9

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	4974.	19.5	8.8	50.	253.3	5.2	
800.0	6687.	18.2	6.1	45.	232.1	15.6	
750.0	8490.	14.4	2.6	45.	240.7	17.3	
700.0	10384.	8.7	-1.7	48.	247.3	22.9	
650.0	12378.	3.7	-4.4	50.	248.5	28.9	
600.0	14494.	-1.1	-11.4	45.	248.1	21.8	
550.0	16752.	-5.3	-20.5	29.	244.5	14.6	
500.0	19196.	-8.4	-24.4	26.	249.5	25.9	
450.0	21850.	-14.0	-29.0	27.	246.1	24.6	
400.0	24748.	-20.5	-34.2	28.	249.7	28.2	
350.0	27946.	-26.6	-39.9	27.			

GEODLTIC COORDINATES
33.16712 LAT DEG
106.49511 LOH DEG

SIGNIFICANT LEVEL DATA
2680030154
JALLEN

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 81 0745 MDT
ASCENSION NO. 154

TABLE 10

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
878.8	10.6	7.7	82.0
874.2	15.1	6.4	56.0
850.0	18.8	7.6	48.0
834.6	20.1	7.5	44.0
784.2	17.4	2.2	36.0
700.0	8.4	-9	52.0
629.2	.6	-5.6	63.0
605.8	-1.0	-10.3	49.0
584.6	-3.7	-14.7	42.0
570.6	-3.5	-19.8	27.0
527.0	-5.7	-23.0	24.0
500.0	-8.0	-25.0	24.0
482.6	-9.5	-26.7	23.0
400.0	-21.0	-35.4	26.0
374.8	-24.7	-38.2	27.0
364.8	-25.1	-38.9	26.0
344.0	-28.0	-41.5	26.0

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 61
 ASCENSION NO. 154 0745 MDT

UPPER AIR DATA
 200030154
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

TABLE 11

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION, SPEED DEGREES (T), KNOTS	INDEX OF REFRACTION
4051.0	873.8	10.6	82.0	1074.0	657.7	.0	1.000289
4500.0	864.8	16.5	52.9	1035.4	664.5	243.9	1.000276
5000.0	849.5	18.9	47.8	1004.7	667.3	243.9	1.000271
5500.0	834.6	19.9	43.3	987.7	668.4	243.9	1.000264
6000.0	819.9	19.2	41.2	973.0	667.5	243.2	1.000257
6500.0	805.5	18.5	39.1	954.5	666.0	239.6	1.000251
7000.0	791.3	17.8	37.1	944.2	665.7	237.5	1.000244
7500.0	777.3	16.7	37.2	931.0	664.4	236.1	1.000239
8000.0	763.3	15.3	39.8	918.9	662.7	237.5	1.000236
8500.0	749.6	13.8	42.3	906.9	661.1	240.8	1.000233
9000.0	736.2	12.4	44.9	895.2	659.4	243.0	1.000230
9500.0	723.0	11.0	47.4	883.6	657.7	244.7	1.000226
10000.0	710.0	9.5	50.0	872.2	656.0	243.4	1.000223
10500.0	697.2	8.1	52.4	860.9	654.4	242.0	1.000219
11000.0	684.3	6.7	54.3	849.2	652.7	241.4	1.000215
11500.0	671.6	5.4	56.3	837.7	651.1	241.3	1.000211
12000.0	659.2	4.0	58.2	826.3	649.5	243.0	1.000207
12500.0	647.0	2.6	60.1	815.2	647.6	244.0	1.000204
13000.0	635.1	1.3	62.0	804.2	646.2	244.3	1.000200
13500.0	623.2	.2	59.5	792.5	644.8	244.5	1.000195
14000.0	611.5	-6	52.5	780.2	643.8	244.6	1.000189
14500.0	600.0	-1.7	47.1	768.8	642.3	243.6	1.000184
15000.0	588.6	-3.2	43.3	758.5	640.5	242.1	1.000180
15500.0	577.4	-3.6	34.3	745.4	639.9	243.8	1.000174
16000.0	566.4	-3.7	26.7	731.7	639.7	245.9	1.000169
16500.0	555.5	-4.2	26.0	719.1	639.1	251.0	1.000166
17000.0	544.9	-4.8	25.3	706.8	638.5	250.0	1.000163
17500.0	534.5	-5.3	24.5	694.7	637.8	257.4	1.000160
18000.0	524.2	-5.9	24.0	683.0	637.1	253.4	1.000157
18500.0	514.1	-6.8	24.0	671.9	636.0	253.5	1.000154
19000.0	504.2	-7.6	24.0	661.1	635.0	258.4	1.000152
19500.0	494.4	-8.5	23.7	650.4	634.0	258.5	1.000149
20000.0	484.8	-9.3	23.1	639.8	633.0	258.7	1.000146
20500.0	475.2	-10.4	23.2	629.8	631.6	258.0	1.000144
21000.0	465.8	-11.7	23.6	620.2	630.1	257.6	1.000141
21500.0	456.5	-12.9	23.9	610.8	628.6	257.9	1.000139
22000.0	447.4	-14.1	24.2	601.5	627.1	258.6	1.000137
22500.0	438.5	-15.4	24.5	592.3	625.6	259.0	1.000135
23000.0	429.7	-16.6	24.9	583.3	624.1	261.5	1.000132
23500.0	421.2	-17.8	25.2	574.5	622.6	261.5	1.000130

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 61 0745 MDT
 ASCENSION; NO. 154

UPPER AIR DATA
 2680030154
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE 11 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SOUND SPEED KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(T)	SPEED KNOTS	
24000.0	412.8	-19.1	25.5	565.8	621.1	251.2	27.0	1.000128
24500.0	404.6	-20.3	25.8	557.3	619.6	257.9	27.7	1.000126
25000.0	396.4	-21.5	26.1	548.7	618.1	254.5	28.6	1.000124
25500.0	388.3	-22.7	26.5	539.9	616.6	250.3	29.6	1.000122
26000.0	380.3	-23.9	26.8	531.4	615.2	247.7	30.5	1.000120
26500.0	372.5	-24.8	26.8	522.4	614.0	247.1	30.8	1.000118
27000.0	364.8	-25.1	26.0	512.2	613.6			1.000115
27500.0	357.2	-26.1	26.0	503.7	612.3			1.000113
28000.0	349.8	-27.2	26.0	495.3	611.1			1.000111

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 81 0745 MDT
ASCENSION, NO. 154

MANDATORY LEVELS
2680030154
JALLEN
TABLE 12

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIN. DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	4979.	10.8	7.6	40.	243.9	4.4	
800.0	6690.	10.2	3.8	38.	238.6	12.7	
750.0	8492.	13.9	1.3	42.	240.7	15.0	
700.0	10302.	8.4	-0.9	52.	242.3	20.0	
650.0	12374.	3.0	-4.1	60.	243.9	25.3	
600.0	14483.	-1.7	-11.5	47.	243.7	23.4	
550.0	16740.	-4.5	-21.2	20.	253.6	21.9	
500.0	19108.	-8.0	-25.0	24.	258.4	27.3	
450.0	21847.	-13.8	-29.9	24.	258.5	30.4	
400.0	24743.	-21.0	-35.4	26.	256.1	28.2	
350.0	27937.	-27.1	-40.7	26.			

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

SIGNIFICANT LEVEL DATA
2680140209
LC-37

STATION ALTITUDE 4051.37 FEET MSL
25 SEP. 61
ASCENSION NO. 209 0800 MDT

TABLE 13

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE		REL. HUM. PERCENT
879.4	4051.4	17.8	10.9	64.0
876.0	4160.4	18.0	11.1	64.0
866.6	4466.1	21.1	13.3	61.0
850.0	5016.9	21.1	10.6	51.0
825.6	5845.7	21.1	7.7	42.0
796.8	6851.8	19.0	5.5	41.0
758.2	8244.6	15.2	5.4	52.0
712.7	9955.8	10.7	3.0	59.0
700.0	10447.6	9.0	4.8	75.0
646.0	12615.2	3.5	-1.1	72.0
601.0	14525.8	-1.8	-3.8	86.0
574.8	15690.2	-3.0	-16.3	35.0
532.2	17692.5	-3.8	-19.6	28.0
500.0	19301.5	-7.6	-22.9	28.0
435.6	22784.7	-14.6	-29.0	28.0
400.0	24889.3	-19.6	-32.7	30.0
369.2	26830.3	-24.2	-36.8	30.0
348.2	28230.7	-26.1	-38.4	30.0
314.6	30620.9	-31.7	-43.4	30.0

STATION ALTITUDE 4051.37 FEET MSL
 25 SEP. 61 0800 MDT
 ASCENSION NO. 209

UPPER AIR DATA
 260160209
 LC-37
 TABLE 14

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND MOTS	WIND DATA DIRECTION, DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
4051.4	879.4	17.8	10.9	64.0	1047.0	666.4	105.0	1.9	1.000292
4500.0	863.6	21.1	13.1	60.4	1018.0	670.5	107.0	2.9	1.000293
5000.0	850.5	21.1	10.7	51.3	1001.2	670.2	198.1	4.2	1.000279
5500.0	835.7	21.1	9.0	45.8	984.3	670.0	203.0	5.6	1.000270
6000.0	821.1	20.8	7.4	41.8	960.6	669.5	208.6	5.8	1.000261
6500.0	806.8	19.7	6.2	41.3	955.3	668.2	217.4	4.5	1.000255
7000.0	792.6	18.6	5.5	42.2	942.3	666.9	228.3	4.4	1.000250
7500.0	778.6	17.2	5.6	46.1	930.0	665.3	234.4	5.5	1.000248
8000.0	764.8	15.9	5.5	50.1	917.8	663.8	235.3	7.3	1.000246
8500.0	751.2	14.5	5.1	53.0	905.7	662.2	234.4	9.6	1.000242
9000.0	737.8	13.2	4.4	55.1	893.7	660.7	232.9	11.5	1.000238
9500.0	724.5	11.9	3.7	57.1	881.0	659.1	231.6	13.2	1.000234
10000.0	711.5	10.5	3.2	60.4	870.2	657.5	229.9	14.6	1.000230
10500.0	698.6	8.9	4.7	74.9	859.0	655.7	220.4	16.0	1.000232
11000.0	685.8	7.6	3.3	74.2	847.4	654.2	230.3	18.4	1.000226
11500.0	673.2	6.3	2.0	73.5	835.9	652.6	231.6	20.6	1.000220
12000.0	660.9	5.1	.6	72.9	824.5	651.0	231.9	22.3	1.000215
12500.0	648.8	3.8	-.7	72.2	813.3	649.4	231.9	23.6	1.000210
13000.0	636.7	2.4	-1.6	74.8	802.2	647.8	231.6	23.9	1.000206
13500.0	624.8	1.0	-2.3	78.5	791.3	646.1	232.5	24.7	1.000202
14000.0	613.1	-.3	-3.0	82.1	780.5	644.4	234.6	26.3	1.000199
14500.0	601.6	-1.7	-3.8	85.8	769.9	642.8	239.2	26.6	1.000195
15000.0	590.2	-2.3	-7.9	65.2	757.4	641.9	245.7	26.4	1.000186
15500.0	579.0	-2.8	-13.5	43.3	745.0	641.0	251.0	24.1	1.000177
16000.0	568.0	-3.1	-16.8	33.9	732.0	640.5	257.1	21.3	1.000172
16500.0	557.2	-3.3	-17.6	32.2	718.6	640.3	258.7	19.7	1.000168
17000.0	546.6	-3.5	-19.4	30.4	705.5	640.0	258.2	18.4	1.000165
17500.0	536.2	-3.7	-19.2	28.7	692.6	639.8	257.5	18.9	1.000161
18000.0	525.9	-4.5	-20.2	28.0	681.4	638.8	256.8	20.3	1.000158
18500.0	515.8	-5.7	-21.2	28.0	671.3	637.4	256.9	21.4	1.000155
19000.0	505.9	-6.9	-22.3	28.0	661.4	635.9	257.1	22.6	1.000153
19500.0	496.1	-8.0	-23.2	28.0	651.3	634.6	256.8	23.9	1.000150
20000.0	486.4	-9.0	-24.1	28.0	641.0	633.4	256.5	25.6	1.000147
20500.0	476.8	-10.0	-25.0	28.0	630.9	632.2	256.3	27.8	1.000145
21000.0	467.5	-11.0	-25.9	28.0	620.9	630.9	257.0	29.0	1.000142
21500.0	458.3	-12.0	-26.8	28.0	611.1	629.7	258.3	29.6	1.000140
22000.0	449.3	-13.0	-27.6	28.0	601.4	628.5	258.2	29.4	1.000137
22500.0	440.5	-14.0	-28.5	28.0	592.0	627.3	254.2	29.4	1.000135
23000.0	431.8	-15.1	-29.4	28.2	582.7	625.9	253.9	30.6	1.000133
23500.0	423.2	-16.3	-30.2	28.7	573.7	624.5	253.0	31.6	1.000131

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

UPPER AIR DATA
2680180209
LC-37

STATION ALTITUDE 4051.37 FEET MSL
25 SEP. 81 0800 MDT
ASCENSION NO. 209

TABLE 14 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND MOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION, DEGREES(TN)	SPEED KNOTS	
24000.0	414.7	-17.5	29.2	564.8	623.0	251.5	32.4	1.000128
24500.0	406.4	-18.7	29.6	556.1	621.6	250.0	33.1	1.000126
25000.0	398.2	-19.9	30.0	547.4	620.1	248.5	33.8	1.000124
25500.0	390.0	-21.0	30.0	538.8	618.7	248.5	33.9	1.000122
26000.0	382.1	-22.2	30.0	530.3	617.2	249.1	33.7	1.000120
26500.0	374.3	-23.4	30.0	521.9	615.7	248.5	32.8	1.000118
27000.0	366.6	-24.4	30.0	513.3	614.5	247.6	31.8	1.000116
27500.0	359.0	-25.1	30.0	504.1	613.6	248.5	31.6	1.000114
28000.0	351.6	-25.8	30.0	495.0	612.8	249.0	31.3	1.000112
28500.0	344.2	-26.7	30.0	486.5	611.6	249.9	30.7	1.000110
29000.0	337.0	-27.9	30.0	478.6	610.2	250.7	30.8	1.000108
29500.0	329.9	-29.1	30.0	470.8	608.7	251.5	31.5	1.000106
30000.0	323.0	-30.2	30.0	463.2	607.2			1.000104
30500.0	316.2	-31.4	30.0	455.6	605.8			1.000102

STATION ALTITUDE 4051.37 FEET (SL)
25 SEP. 81
ASCENSION NO. 209

MANDATORY LEVELS
2680180203
LC-37
TABLE 15

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES (TN)	SPEED KNOTS	
850.0	5013.	21.1	10.6	51.	198.3	4.2	
800.0	6733.	19.2	5.7	41.	223.5	3.9	
750.0	8540.	14.4	5.0	53.	234.3	9.8	
700.0	10437.	9.0	4.8	75.	228.5	15.9	
650.0	12437.	3.9	-6	72.	231.9	23.6	
600.0	14552.	-1.8	-4.2	84.	240.0	26.6	
550.0	16816.	-3.5	-18.1	31.	258.4	18.8	
500.0	19274.	-7.6	-22.9	28.	256.9	23.4	
450.0	21937.	-12.9	-27.6	28.	256.4	29.4	
400.0	24847.	-19.6	-32.7	30.	248.8	33.7	
350.0	28056.	-25.9	-38.3	30.	249.2	31.2	

GEODETIC COORDINATES
32.08865 LAT DEG
106.09965 LONG DEG

SIGNIFICANT LEVEL DATA
2680010234
HOLLOMAN

STATION ALTITUDE 4126.59 FEET MSL
25 SEP. 61 0800 MDT
ASCENSION, NO. 234

TABLE 16

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT
877.4	4126.6	14.9	7.7
871.0	4330.9	16.4	7.3
861.4	4644.2	22.2	10.7
850.0	5024.0	21.0	9.3
814.2	6244.7	19.7	6.1
714.0	9300.4	10.5	-9
700.0	10441.5	9.1	2.0
640.7	12495.9	3.3	1.7
620.9	13659.0	.2	-3.7
599.0	14604.5	-8	-9.4
573.8	15727.1	-3.8	-14.2
532.6	17661.7	-3.9	-18.1
500.0	19290.2	-7.5	-21.3
400.0	24871.6	-19.9	-31.7
382.2	25979.1	-21.7	-33.6
354.8	27770.9	-25.0	-36.8
300.0	31708.1	-34.6	-45.4
272.2	33921.3	-39.8	-49.8
250.0	35819.2	-44.0	
235.7	37113.2	-46.9	
200.0	40626.2	-56.1	
191.2	41563.1	-58.8	
172.2	43714.7	-61.6	
163.2	44814.3	-60.4	
150.6	46535.2	-63.3	
119.8	51213.7	-67.6	
115.0	51859.1	-67.7	
111.6	52457.5	-65.9	
100.0	54642.4	-68.4	
88.6	57023.8	-70.8	
77.2	59767.0	-63.5	
70.0	61746.7	-64.0	
66.2	62986.5	-59.4	
58.4	65469.0	-61.0	
50.0	68681.0	-57.8	
44.2	71262.3	-55.9	
39.4	73578.5	-56.2	
34.8	76295.7	-54.7	
30.0	79446.3	-53.3	
20.0	88156.4	-49.7	

GEODETIC COORDINATES
 32.08865 LAT DEG
 106.09965 LON DEG

SIGNIFICANT LEVEL DATA
 2689010234
 HOLLLOMAN

TABLE 16 Cont'd

STATION ALTITUDE 1126.59 FEET MSL
 25 SEP 61 0800 MDT
 ASCENSION 140. 234

PRESSURE	GEOMETRIC	TEMPERATURE	REL. HUM.
MILLIBARS	ALTITUDE	AIR DEWPOINT	PERCENT
MSL	FEET	DEGREES	CENTIGRADE
15.0	93293.3	-47.2	
11.0	101245.6	-46.5	

STATION ALTITUDE 4126.59 FEET NSL
25 SEP. 61 0800 MDT
ASCENSION IS. 234

UPPER AIR DATA
2680010234
HOLLOMAN
TABLE 17

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION, DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
4126.59	877.4	14.9	7.7	62.0	1056.3	662.7	350.0	1.9	1.000283
4500.0	865.8	19.5	9.2	51.2	1025.3	668.2	234.7	1.5	1.000280
5000.0	850.7	21.1	9.4	47.1	1002.0	670.0	204.0	5.2	1.000275
5500.0	835.9	20.5	8.1	44.7	986.8	669.2	203.7	9.1	1.000267
6000.0	821.3	20.0	6.7	42.2	971.6	668.5	204.8	12.1	1.000260
6500.0	806.8	19.1	5.6	41.3	957.7	667.4	220.9	11.2	1.000254
7000.0	792.4	17.8	4.7	41.8	944.9	665.9	235.2	11.3	1.000249
7500.0	776.3	16.5	3.7	42.4	932.3	664.4	242.7	12.3	1.000244
8000.0	764.4	15.3	2.8	42.9	919.4	662.9	244.1	13.2	1.000239
8500.0	750.8	14.0	1.8	43.5	907.6	661.3	240.6	13.8	1.000234
9000.0	737.5	12.8	.8	44.0	895.6	659.8	236.9	14.8	1.000230
9500.0	724.3	11.5	-.1	44.6	883.7	658.3	233.1	15.9	1.000225
10000.0	711.4	10.2	-.3	47.9	871.7	656.9	232.2	17.5	1.000222
10500.0	698.5	8.9	2.0	61.8	859.3	655.6	232.8	19.3	1.000225
11000.0	685.7	7.5	2.1	68.6	847.7	654.0	233.5	20.6	1.000223
11500.0	673.1	6.1	2.1	75.4	836.3	652.3	234.3	21.7	1.000221
12000.0	660.7	4.7	1.9	82.2	825.1	650.7	235.3	22.3	1.000218
12500.0	648.6	3.3	1.6	89.0	814.1	649.0	236.4	22.7	1.000216
13000.0	636.5	2.0	-.6	82.9	803.2	647.3	236.2	23.1	1.000208
13500.0	624.6	.6	-.9	76.9	792.4	645.6	240.7	23.6	1.000201
14000.0	612.9	-.2	-.5	66.7	780.2	644.5	243.9	22.9	1.000194
14500.0	601.4	-.7	-.8	54.5	767.4	643.7	247.9	21.5	1.000187
15000.0	590.0	-1.9	-11.1	49.2	756.3	642.2	252.3	19.8	1.000182
15500.0	578.8	-3.2	-13.2	45.6	745.9	640.6	257.4	18.0	1.000178
16000.0	567.8	-3.8	-14.7	42.3	735.5	639.8	258.7	19.5	1.000174
16500.0	557.0	-3.8	-15.7	39.2	725.0	639.7	259.7	20.9	1.000170
17000.0	546.3	-3.9	-16.7	36.1	714.0	639.7	260.0	22.5	1.000166
17500.0	535.9	-3.9	-17.8	33.0	702.6	639.6	260.5	23.6	1.000162
18000.0	525.7	-4.6	-18.8	32.0	691.3	638.7	261.3	24.2	1.000159
18500.0	515.6	-5.8	-19.8	32.0	679.0	637.5	261.4	25.0	1.000156
19000.0	505.7	-6.9	-20.7	32.1	667.4	636.0	261.3	25.8	1.000153
19500.0	495.8	-8.0	-21.7	32.1	655.6	634.7	260.9	26.6	1.000151
20000.0	486.0	-9.1	-22.6	32.3	644.0	633.3	260.4	27.3	1.000148
20500.0	476.4	-10.2	-23.5	32.4	632.0	632.0	260.2	28.1	1.000145
21000.0	467.0	-11.3	-24.5	32.6	620.4	630.6	260.0	29.0	1.000143
21500.0	457.7	-12.4	-25.4	32.8	608.2	629.3	260.2	29.5	1.000140
22000.0	448.7	-13.5	-26.3	33.0	596.0	627.9	260.2	30.0	1.000138
22500.0	439.8	-14.6	-27.2	33.2	583.5	626.6	259.9	29.8	1.000136
23000.0	431.1	-15.7	-28.2	33.3	571.1	625.2	257.2	29.9	1.000133
23500.0	422.5	-16.9	-29.1	33.5	558.4	623.9	254.4	30.2	1.000131

STATION ALTITUDE 4126.59 FEET MSL
25 SEP. 81 0800 MDT
ASCENSION NO. 234

UPPER AIR DATA
268001023,
HOLLOWAY

GEODETIC COORDINATES
32.00465 LAT DEG
106.09965 LONG DEG

TABLE 17 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TRUE)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	414.2	-18.0	33.7	565.2	622.5	252.0	30.7	1.000129
24500.0	400.0	-19.1	33.9	556.4	621.1	249.9	31.4	1.000127
25000.0	397.9	-20.1	33.9	547.6	619.8	247.9	31.3	1.000124
25500.0	389.8	-20.9	33.4	538.2	618.8	246.0	31.2	1.000122
26000.0	381.9	-21.7	33.0	528.9	617.8	245.9	31.8	1.000120
26500.0	374.0	-22.7	32.7	520.0	616.7	245.8	32.7	1.000118
27000.0	366.3	-23.6	32.4	511.2	615.5	245.2	34.1	1.000116
27500.0	358.8	-24.5	32.2	502.6	614.4	244.4	34.1	1.000114
28000.0	351.4	-25.6	32.0	494.2	613.1	243.2	32.6	1.000112
28500.0	343.9	-26.8	32.0	486.2	611.6	242.5	32.0	1.000110
29000.0	336.7	-28.0	32.0	478.3	610.0	242.2	32.2	1.000108
29500.0	329.6	-29.2	32.0	470.6	608.5	243.1	33.0	1.000106
30000.0	322.6	-30.4	32.0	463.0	607.0	244.5	34.1	1.000104
30500.0	315.8	-31.7	32.0	455.5	605.5	245.5	34.3	1.000102
31000.0	309.2	-32.9	32.0	448.2	603.9	246.3	34.1	1.000101
31500.0	302.7	-34.1	32.0	441.0	602.4	246.0	34.8	1.000099
32000.0	296.2	-35.3	32.1	433.7	600.9	245.0	36.1	1.000097
32500.0	289.7	-36.5	32.4	426.4	599.4	244.9	34.5	1.000096
33000.0	283.4	-37.6	32.6	419.2	597.9	245.3	31.6	1.000094
33500.0	277.3	-38.8	32.8	412.2	596.4	245.8	28.7	1.000092
34000.0	271.2	-40.0	31.6*	405.2	594.9	246.5	25.9	1.000091
34500.0	265.2	-41.1	22.9*	398.1	593.5	246.5	26.4	1.000089
35000.0	259.4	-42.2	14.2*	391.2	592.1	246.5	27.1	1.000087
35500.0	253.6	-43.3	5.6*	384.4	590.6	250.6	43.9	1.000086
36000.0	248.0	-44.4		377.6	589.2	252.7	64.8	1.000084
36500.0	242.4	-45.5		370.9	587.8	253.8	76.5	1.000083
37000.0	236.9	-46.6		364.4	586.3	254.6	83.9	1.000081
37500.0	231.5	-47.9		358.0	584.7	255.1	82.9	1.000080
38000.0	226.1	-49.2		351.8	583.0	255.2	70.8	1.000078
38500.0	220.9	-50.5		345.7	581.5	255.3	60.8	1.000077
39000.0	215.8	-51.8		339.7	579.6	255.0	59.3	1.000076
39500.0	210.8	-53.2		333.8	577.8	254.8	57.7	1.000074
40000.0	205.9	-54.5		328.1	576.1	253.9	55.7	1.000073
40500.0	201.2	-55.8		322.4	574.4	253.0	53.6	1.000072
41000.0	196.4	-57.2		316.9	572.5	251.6	54.7	1.000071
41500.0	191.8	-58.6		311.4	570.7	250.2	56.6	1.000069
42000.0	187.2	-59.4		305.9	569.0	250.5	58.1	1.000068
42500.0	182.7	-60.0		299.0	567.7	251.0	59.3	1.000067
43000.0	178.3	-60.7		292.5	567.9	253.3	59.8	1.000065
43500.0	174.0	-61.3		286.2	567.0	253.4	59.8	1.000064

** AT LAST ONE ASSIGNED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4126.59 FEET MSL
25 SEP. 81 0800 MDT
ASCENSION NO. 234

UPPER AIR DATA
2600010234
HOLLOMAN

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

TABLE 17 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	DEWPOINT DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION (DEGREES(TN))	SPEED KNOTS	
44000.0	169.8	-61.3			279.2	567.1	256.3	59.7	1.000062
44500.0	165.7	-60.7			271.8	567.8	256.1	59.4	1.000061
45000.0	161.7	-60.7			265.2	567.8	255.7	58.4	1.000059
45500.0	157.8	-61.6			259.8	566.7	255.2	57.1	1.000058
46000.0	154.0	-62.4			254.5	565.6	255.1	56.8	1.000057
46500.0	150.3	-63.2			249.4	564.4	255.3	56.9	1.000056
47000.0	146.6	-63.7			243.8	563.0	255.3	57.3	1.000054
47500.0	143.0	-64.2			238.3	563.2	255.3	57.8	1.000053
48000.0	139.4	-64.6			233.0	562.5	254.4	57.9	1.000052
48500.0	135.0	-65.1			227.7	561.9	253.3	57.9	1.000051
49000.0	132.7	-65.6			222.6	561.3	252.1	56.2	1.000050
49500.0	129.4	-66.0			217.6	560.7	250.9	53.8	1.000048
50000.0	126.2	-66.5			212.7	560.1	250.3	50.8	1.000047
50500.0	123.1	-66.9			208.0	559.4	250.2	47.4	1.000046
51000.0	120.1	-67.4			203.3	558.8	250.0	42.8	1.000045
51500.0	117.1	-67.6			198.5	558.5	249.6	37.1	1.000044
52000.0	114.2	-67.3			193.2	559.0	248.9	29.3	1.000043
52500.0	111.4	-65.9			187.2	560.8	246.9	18.8	1.000042
53000.0	108.6	-66.5			183.1	560.0	242.9	12.3	1.000041
53500.0	105.9	-67.1			179.0	559.2	239.9	11.8	1.000040
54000.0	103.3	-67.7			175.1	558.5	238.2	12.5	1.000039
54500.0	100.7	-68.2			171.2	557.7	240.5	17.0	1.000038
55000.0	98.2	-68.8			167.4	557.0	241.9	21.5	1.000037
55500.0	95.7	-69.3			163.6	556.3	243.2	20.0	1.000036
56000.0	93.3	-69.8			159.9	555.6	244.0	18.5	1.000036
56500.0	91.0	-70.3			156.2	554.9	243.2	18.0	1.000035
57000.0	88.7	-70.8			152.7	554.2	240.7	17.7	1.000034
57500.0	86.5	-69.5			148.0	553.9	235.6	17.3	1.000033
58000.0	84.4	-68.2			143.4	553.7	227.9	17.0	1.000032
58500.0	82.3	-66.9			138.9	553.5	222.3	16.6	1.000031
59000.0	80.2	-65.5			134.6	561.3	224.5	14.7	1.000030
59500.0	78.2	-64.2			130.5	563.1	227.4	12.9	1.000029
60000.0	76.3	-63.6			126.9	563.9	243.7	10.0	1.000028
60500.0	74.5	-63.9			124.0	563.5	271.1	0.4	1.000028
61000.0	72.6	-64.2			121.1	563.2	287.6	9.8	1.000027
61500.0	70.9	-64.5			118.3	562.8	291.0	12.2	1.000026
62000.0	69.1	-63.4			114.9	564.2	290.0	13.9	1.000026
62500.0	67.5	-61.2			110.9	567.2	276.6	12.7	1.000025
63000.0	65.8	-59.5			107.3	569.5	260.0	12.4	1.000024
63500.0	64.3	-59.8			104.9	569.1	228.2	0.4	1.000023

STATION ALTITUDE 126.59 FEET MSL
25 SEP. 61 0800 MDT
ASCENSION NO. 234

UPPER AIR DATA
260010234
HOLLONAH

GEODETIC COORDINATES
32.68865 LAT UEG
106.09965 LONG UEG

TABLE 17 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION IN DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	62.7	-60.1		102.5	568.7	172.6	9.4	1.000023
64500.0	61.2	-60.4		100.2	568.2	143.2	13.1	1.000022
65000.0	59.7	-60.7		98.0	567.8	118.5	14.9	1.000022
65500.0	58.3	-61.0		95.7	567.5	101.5	18.7	1.000021
66000.0	56.9	-60.5		93.2	568.1	84.5	17.4	1.000021
66500.0	55.6	-60.0		90.6	568.8	64.7	17.0	1.000020
67000.0	54.2	-59.5		88.4	569.5	52.9	15.1	1.000020
67500.0	52.9	-59.0		86.1	570.1	49.2	8.6	1.000019
68000.0	51.7	-58.5		83.9	570.8	24.6	2.4	1.000019
68500.0	50.4	-58.0		81.7	571.5	255.6	4.1	1.000018
69000.0	49.2	-57.6		79.6	572.0	244.6	9.8	1.000018
69500.0	48.1	-57.2		77.6	572.5	245.5	13.4	1.000017
70000.0	46.9	-56.8		75.6	573.0	253.3	13.4	1.000017
70500.0	45.8	-56.5		73.7	573.5	261.0	13.6	1.000016
71000.0	44.8	-56.1		71.6	574.0	278.6	4.8	1.000016
71500.0	43.7	-55.9		70.1	574.2	61.9	8.5	1.000016
72000.0	42.7	-56.0		68.5	574.1	69.6	21.0	1.000015
72500.0	41.7	-56.1		66.9	574.0	71.7	33.4	1.000015
73000.0	40.7	-56.1		65.3	573.9	72.6	45.8	1.000015
73500.0	39.7	-56.2		63.8	573.8	73.0	55.1	1.000014
74000.0	38.8	-56.0		62.3	574.1	73.1	60.4	1.000014
74500.0	37.9	-55.7		60.7	574.4	73.2	65.8	1.000014
75000.0	37.0	-55.4		59.2	574.8	74.1	62.8	1.000013
75500.0	36.1	-55.2		57.8	575.2	75.7	55.6	1.000013
76000.0	35.3	-54.9		56.3	575.6	77.8	48.6	1.000013
76500.0	34.5	-54.6		54.9	575.9	78.6	37.4	1.000012
77000.0	33.7	-54.4		53.0	576.2	79.3	25.5	1.000012
77500.0	32.9	-54.2		52.3	576.5	81.4	13.7	1.000012
78000.0	32.1	-53.9		51.0	576.8	77.7	9.2	1.000011
78500.0	31.4	-53.7		49.8	577.1	67.2	4.9	1.000011
79000.0	30.6	-53.5		48.6	577.4	33.7	1.6	1.000011
79500.0	29.9	-53.3		47.4	577.7	271.8	5.0	1.000011
80000.0	29.2	-53.1		46.3	577.9	263.9	11.6	1.000010
80500.0	28.6	-52.9		45.2	578.2	259.8	17.6	1.000010
81000.0	27.9	-52.7		44.1	578.5	255.3	24.3	1.000010
81500.0	27.3	-52.5		43.0	578.8	252.6	31.1	1.000010
82000.0	26.6	-52.2		42.0	579.0	251.1	37.0	1.000009
82500.0	26.0	-52.0		41.0	579.3	247.7	41.5	1.000009
83000.0	25.4	-51.8		40.0	579.0	244.8	45.4	1.000009
83500.0	24.8	-51.6		39.1	579.0	242.4	49.4	1.000009

STATION ALTITUDE 4126.59 FEET MSL
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UPPER AIR DATA
2680010234
HOLLOMAN

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LONG DEG

TABLE 17 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIR. DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
84000.0	24.3	-51.4		30.1	580.1	240.2	44.5	1.000008
84500.0	23.7	-51.2		37.2	580.4	236.9	33.8	1.000008
85000.0	23.2	-51.0		36.3	580.6	230.5	23.4	1.000008
85500.0	22.6	-50.8		35.5	580.9	216.4	14.1	1.000008
86000.0	22.1	-50.6		34.6	581.2	196.3	9.0	1.000008
86500.0	21.6	-50.4		33.8	581.5	150.8	6.8	1.000008
87000.0	21.1	-50.2		33.0	581.7	109.3	9.7	1.000007
87500.0	20.6	-50.0		32.2	582.0	109.8	8.1	1.000007
88000.0	20.1	-49.8		31.4	582.3	143.3	4.1	1.000007
88500.0	19.7	-49.5		30.7	582.6	214.5	4.7	1.000007
89000.0	19.2	-49.3		29.9	582.9	238.0	7.1	1.000007
89500.0	18.8	-49.0		29.2	583.2	249.3	2.2	1.000006
90000.0	18.4	-48.8		28.5	583.5	41.4	2.9	1.000006
90500.0	18.0	-48.6		27.9	583.8	40.8	7.9	1.000006
91000.0	17.6	-48.3		27.2	584.2	50.7	13.5	1.000006
91500.0	17.2	-48.1		26.6	584.5	61.7	19.7	1.000006
92000.0	16.8	-47.8		25.9	584.8	64.4	25.9	1.000006
92500.0	16.4	-47.6		25.3	585.1	65.6	30.8	1.000006
93000.0	16.0	-47.3		24.7	585.4	64.7	29.1	1.000005
93500.0	15.7	-47.2		24.1	585.6	63.7	27.4	1.000005
94000.0	15.3	-47.1		23.6	585.7	62.5	25.8	1.000005
94500.0	15.0	-47.1		23.0	585.7	61.5	23.0	1.000005
95000.0	14.6	-47.0		22.5	585.8	60.5	17.9	1.000005
95500.0	14.3	-47.0		22.0	585.9	58.9	12.8	1.000005
96000.0	14.0	-47.0		21.5	585.9	55.2	7.8	1.000005
96500.0	13.7	-46.9		21.0	586.0	44.4	3.5	1.000005
97000.0	13.3	-46.9		20.5	586.0	52.4	3.9	1.000005
97500.0	13.0	-46.8		20.1	586.1	59.0	4.3	1.000004
98000.0	12.8	-46.8		19.6	586.1	64.3	4.8	1.000004
98500.0	12.5	-46.7		19.2	586.2	68.6	5.3	1.000004
99000.0	12.2	-46.7		18.7	586.3			1.000004
99500.0	11.9	-46.7		18.3	586.3			1.000004
100000.0	11.6	-46.6		17.9	586.4			1.000004
100500.0	11.4	-46.6		17.5	586.4			1.000004
101000.0	11.1	-46.5		17.1	586.5			1.000004

STATION ALTITUDE 4126.59 FEET MSL
25 SEP. 61 0800 MDT
ASCENSION NO. 234

MANDATORY LEVELS
268010234
HOLLOWAY

GEODETTIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

TABLE 18

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5020.	21.0	9.3	47.	207.7	5.4
800.0	6736.	18.5	5.2	42.	229.3	11.0
750.0	8538.	13.9	1.7	44.	240.4	13.9
700.0	10432.	9.1	2.0	61.	232.7	19.1
650.0	12429.	3.5	1.7	68.	236.3	22.7
600.0	14544.	-8	-9.1	53.	248.4	21.4
550.0	16806.	-3.9	-16.3	37.	259.9	22.0
500.0	19264.	-7.5	-21.3	32.	261.1	26.3
450.0	21926.	-13.4	-26.2	33.	260.3	30.0
400.0	24831.	-19.9	-31.7	34.	248.4	31.4
350.0	28046.	-25.8	-37.5	32.	243.0	32.3
300.0	31646.	-34.6	-45.4	32.	245.0	35.3
250.0	35741.	-44.0			252.0	56.5
200.0	40529.	-56.1			252.8	53.2
175.0	43275.	-61.2			254.8	59.8
150.0	46410.	-63.3			255.3	56.9
125.0	50058.	-66.7			250.2	49.6
100.0	54475.	-68.4			240.9	18.1
80.0	58854.	-65.4			224.0	14.7
70.0	61536.	-64.6			292.1	13.3
60.0	64683.	-60.7			123.6	14.3
50.0	68424.	-57.8			250.1	5.7
40.0	73070.	-56.2			72.9	53.3
30.0	79109.	-53.3			275.3	4.8
25.0	82975.	-51.7			243.3	47.8
20.0	87745.	-49.7			159.5	3.7
15.0	93964.	-47.1			61.6	24.1

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
25 SEP. 61
ASCENSION NO. 017 0900 MDT

SIGNIFICANT LEVEL DATA
260000017
WHITE SANDS
TABLE 19

GEODETTIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
801.2	3989.0	20.5	61.0
658.4	4733.7	20.6	46.0
450.0	5013.4	21.6	40.0
839.4	5370.9	21.8	35.0
763.8	8031.2	15.5	45.0
700.0	10438.3	9.4	66.0
611.4	14064.0	-1.1	91.0
585.8	15184.7	-2.1	34.0
577.4	15561.5	-2.9	33.0
560.6	16332.1	-1.9	24.0
543.8	17126.7	-2.5	22.0
500.0	19300.1	-6.7	21.0
441.6	22447.5	-13.8	24.0
400.0	24892.0	-19.9	25.0
384.0	25883.4	-22.6	25.0
362.4	27276.9	-24.4	24.0
300.0	31716.8	-34.6	25.0
284.6	32922.8	-37.2	25.0
250.0	35928.2	-44.4	
200.0	40631.2	-55.8	
182.2	42573.8	-58.7	
163.8	44774.0	-59.5	
150.0	46573.7	-63.3	
123.2	50504.3	-69.1	
109.0	52913.9	-70.6	
102.2	54182.0	-68.3	
100.0	54612.5	-68.6	
92.6	56130.7	-69.1	
86.4	57491.1	-71.1	
84.0	58042.3	-70.4	
82.3	58447.1	-66.4	
70.0	61692.9	-65.2	
67.5	62425.8	-64.4	
65.1	63165.5	-59.4	
58.0	65541.2	-61.6	
50.0	68598.2	-59.0	
30.0	79314.5	-54.0	
20.0	88005.2	-50.0	
16.8	91794.4	-48.1	
12.0	99120.6	-49.4	

STATION ALTITUDE 3989.00 FEET ASL
25 SEP. 61 0900 MDT
ASCENSION NO. 017

UPPER AIR DATA
2600020617
WHITE SANDS
TABLE 20

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (IN)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	881.2	20.5	61.0	1038.0	609.7	180.0	8.0	1.000296
4000.0	880.9	20.5	60.8	1038.4	609.7	180.2	7.9	1.000296
4500.0	865.5	20.6	50.7	1021.0	609.5	188.2	7.1	1.000282
5000.0	850.4	21.6	40.3	1000.6	670.3	198.2	6.4	1.000268
5500.0	835.6	21.5	35.5	983.8	670.1	210.1	5.9	1.000259
6000.0	820.9	20.3	37.4	970.5	668.7	223.4	5.4	1.000255
6500.0	806.4	19.1	39.2	957.3	667.4	248.6	3.2	1.000252
7000.0	792.3	17.9	41.1	944.3	666.0	270.8	2.9	1.000248
7500.0	773.3	16.8	43.0	931.5	664.6	253.3	3.9	1.000245
8000.0	764.6	15.6	44.9	919.0	663.3	242.0	5.7	1.000241
8500.0	750.9	14.3	49.1	906.4	661.9	235.8	7.8	1.000239
9000.0	737.5	13.0	53.5	893.9	660.4	231.0	10.0	1.000236
9500.0	724.2	11.8	57.8	881.8	659.0	227.6	12.3	1.000234
10000.0	711.2	10.5	62.2	869.8	657.5	228.4	14.7	1.000231
10500.0	698.4	9.2	66.4	858.0	656.0	229.5	17.2	1.000228
11000.0	685.5	7.8	69.9	846.6	654.3	230.7	19.7	1.000224
11500.0	672.8	6.3	73.3	835.3	652.6	231.7	22.4	1.000220
12000.0	660.4	4.9	76.8	824.3	650.8	231.0	23.7	1.000216
12500.0	648.2	3.4	80.2	813.4	649.1	230.0	24.7	1.000212
13000.0	636.2	2.0	83.7	802.7	647.3	228.2	24.2	1.000208
13500.0	624.4	.5	87.1	792.1	645.6	226.7	24.0	1.000204
14000.0	612.9	-.9	90.6	781.7	643.8	226.6	25.4	1.000201
14500.0	601.3	-1.5	68.8	769.3	642.9	227.8	25.4	1.000191
15000.0	589.9	-1.9	43.4	756.6	642.1	230.9	23.5	1.000180
15500.0	576.8	-2.8	33.2	744.9	640.9	237.8	20.3	1.000174
16000.0	567.8	-2.3	27.9	729.7	641.4	248.9	17.4	1.000170
16500.0	557.0	-2.0	23.6	715.1	641.7	260.0	18.9	1.000166
17000.0	546.4	-2.4	22.3	702.5	641.3	266.3	20.8	1.000162
17500.0	536.0	-3.2	21.8	691.3	640.3	267.2	22.6	1.000159
18000.0	525.8	-4.2	21.6	680.5	639.1	267.5	23.9	1.000157
18500.0	515.7	-5.2	21.4	669.9	638.0	267.2	24.6	1.000154
19000.0	505.8	-6.1	21.1	659.5	636.8	267.7	25.8	1.000151
19500.0	496.1	-7.2	21.2	649.3	635.6	268.4	27.2	1.000149
20000.0	486.4	-8.3	21.7	639.3	634.2	268.5	28.5	1.000146
20500.0	476.9	-9.4	22.1	629.6	632.8	264.3	29.7	1.000144
21000.0	467.6	-10.5	22.6	619.9	631.5	262.2	29.7	1.000141
21500.0	458.4	-11.7	23.1	610.4	630.1	260.2	29.6	1.000139
22000.0	449.5	-12.8	23.6	601.1	628.8	258.9	29.5	1.000137
22500.0	440.7	-13.9	24.0	592.0	627.4	257.5	29.5	1.000135
23000.0	431.8	-15.2	24.2	582.9	625.8	255.5	30.0	1.000132

STATION ALTITUDE 3989.00 FEET MSL
25 SEP. 61 0900 MDT
ASCENSION NO. 017

UPPER AIR DATA
2680020617
WHITE SANDS
TABLE 20 Cont'd

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	EL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	423.2	-16.4	24.4	574.0	624.3	253.3	30.6	1.000130
24000.0	414.7	-17.7	24.6	565.3	622.8	250.5	31.4	1.000128
24500.0	406.4	-18.9	24.8	556.7	621.3	249.1	32.2	1.000126
25000.0	398.2	-20.2	25.0	548.3	619.7	249.0	33.2	1.000124
25500.0	390.1	-21.6	25.0	540.0	618.0	249.2	33.9	1.000122
26000.0	382.1	-22.8	24.9	531.5	616.5	249.7	34.4	1.000120
26500.0	374.3	-23.4	24.6	522.0	615.7	249.1	35.1	1.000118
27000.0	366.6	-24.0	24.2	512.6	614.9	248.2	35.8	1.000115
27500.0	359.0	-24.9	24.1	503.7	613.9	248.4	39.5	1.000113
28000.0	351.4	-26.1	24.2	495.4	612.4	248.7	43.8	1.000111
28500.0	344.0	-27.2	24.3	487.2	611.0	247.0	44.3	1.000110
29000.0	336.8	-28.4	24.4	479.2	609.6	245.8	44.3	1.000108
29500.0	329.7	-29.5	24.5	471.3	608.1	245.9	41.9	1.000106
30000.0	322.7	-30.7	24.6	463.6	606.7	247.0	40.0	1.000104
30500.0	315.9	-31.8	24.7	456.0	605.3	249.9	39.0	1.000102
31000.0	309.3	-33.0	24.8	448.5	603.8	252.1	38.9	1.000101
31500.0	302.8	-34.1	25.0	441.2	602.4	253.2	39.6	1.000099
32000.0	296.3	-35.2	25.0	433.8	601.0	255.3	36.2	1.000097
32500.0	289.9	-36.3	25.0	426.3	599.6	259.3	29.8	1.000095
33000.0	283.6	-37.4	24.3**	419.1	598.2	261.8	28.1	1.000094
33500.0	277.4	-38.6	24.0**	412.0	596.6	262.6	29.1	1.000092
34000.0	271.2	-39.9	15.7**	405.0	595.0	256.1	55.1	1.000090
34500.0	265.3	-41.1	11.4**	398.2	593.4	253.0	94.7	1.000089
35000.0	259.4	-42.3	7.1**	391.5	591.9	252.5	112.3	1.000087
35500.0	253.7	-43.6	2.8**	385.0	590.3	252.6	119.9	1.000086
36000.0	248.0	-44.8		378.4	588.7	253.4	108.4	1.000084
36500.0	242.3	-46.0		371.6	587.2	254.9	87.5	1.000083
37000.0	236.8	-47.2		365.0	585.6	255.6	82.7	1.000081
37500.0	231.3	-48.4		358.5	584.1	256.4	84.2	1.000080
38000.0	226.0	-49.6		352.1	582.5	256.4	80.2	1.000078
38500.0	220.8	-50.7		345.9	581.0	257.2	73.6	1.000077
39000.0	215.7	-51.9		339.7	579.4	258.4	65.0	1.000076
39500.0	210.8	-53.1		333.7	577.9	260.3	55.1	1.000074
40000.0	205.0	-54.3		327.6	576.3	262.4	47.9	1.000073
40500.0	201.2	-55.5		322.1	574.8	264.3	43.2	1.000072
41000.0	196.5	-56.4		315.7	573.6	265.3	40.3	1.000070
41500.0	191.8	-57.1		309.3	572.6	264.8	39.2	1.000069
42000.0	187.3	-57.8		303.0	571.6	262.7	41.7	1.000067
42500.0	182.8	-58.6		296.9	570.7	259.0	47.6	1.000066
43000.0	178.5	-58.9		290.1	570.3	258.0	53.6	1.000065

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET IISL
25 SEP. 61
ASCENSION I.O. 617 0900 MDT

UPPER AIR DATA
2680020617
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 20 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES (TH))	SPEED KNOTS	INDEX OF REFRACTION
43500.0	174.2	-59.0		283.4	570.1	257.2	59.6	1.000063
44000.0	170.1	-59.2		276.4	569.6	256.8	64.1	1.000062
44500.0	166.0	-59.4		270.5	569.6	257.3	62.7	1.000060
45000.0	162.0	-60.0		264.7	568.8	257.7	61.4	1.000059
45500.0	158.1	-61.0		259.6	567.4	257.6	58.5	1.000058
46000.0	154.3	-62.1		254.6	566.0	257.5	55.7	1.000057
46500.0	150.5	-63.1		249.7	564.6	256.7	54.4	1.000056
47000.0	146.8	-63.9		244.5	563.5	255.9	53.1	1.000054
47500.0	143.2	-64.7		239.3	562.5	255.2	52.8	1.000053
48000.0	139.7	-65.4		234.2	561.5	254.4	52.5	1.000052
48500.0	136.2	-66.1		229.2	560.5	253.1	50.8	1.000051
49000.0	132.9	-66.9		224.4	559.5	251.5	48.8	1.000050
49500.0	129.6	-67.6		219.6	558.5	249.2	47.0	1.000049
50000.0	126.4	-68.4		215.0	557.5	246.3	45.4	1.000048
50500.0	123.3	-69.1		210.4	556.5	244.1	44.3	1.000047
51000.0	120.2	-69.4		205.4	556.1	243.2	43.9	1.000046
51500.0	117.1	-69.7		200.6	555.7	243.0	43.0	1.000045
52000.0	114.2	-70.0		195.8	555.2	244.9	40.6	1.000044
52500.0	111.3	-70.3		191.2	554.8	247.0	38.2	1.000043
53000.0	108.5	-70.4		186.5	554.7	248.7	35.3	1.000042
53500.0	105.8	-69.5		181.0	555.9	250.8	32.3	1.000040
54000.0	103.1	-68.6		175.7	557.1	250.2	28.2	1.000039
54500.0	100.6	-68.5		171.2	557.3	249.1	24.0	1.000038
55000.0	98.1	-68.7		167.1	557.0	248.5	18.0	1.000037
55500.0	95.6	-68.9		163.1	556.8	240.0	11.2	1.000036
56000.0	93.2	-69.1		159.1	556.6	223.2	6.2	1.000035
56500.0	90.9	-69.6		155.6	555.8	190.5	4.2	1.000035
57000.0	88.6	-70.4		152.2	554.8	151.6	4.5	1.000034
57500.0	86.4	-71.1		148.9	553.8	167.8	5.5	1.000033
58000.0	84.2	-70.5		144.7	554.7	178.5	6.8	1.000032
58500.0	82.1	-66.4		138.3	560.2	195.0	6.4	1.000031
59000.0	80.1	-66.2		134.8	560.4	216.6	6.2	1.000030
59500.0	78.1	-66.0		131.3	560.7	236.9	8.1	1.000029
60000.0	76.2	-65.8		128.0	560.9	256.9	12.1	1.000029
60500.0	74.3	-65.6		124.7	561.2	251.8	16.0	1.000028
61000.0	72.5	-65.5		121.5	561.4	255.0	14.7	1.000027
61500.0	70.7	-65.3		118.4	561.7	258.9	13.3	1.000026
62000.0	68.9	-64.9		115.3	562.2	255.6	9.8	1.000026
62500.0	67.3	-63.9		112.0	563.5	234.1	5.1	1.000025
63000.0	65.6	-60.5		107.5	568.1	171.5	4.0	1.000024

STATION ALTITUDE 3489.00 FEET MSL
25 SEP. 61 0900 MDT
ASCENSION NO. 017

UPPER AIR DATA
2680020017
WHITE SAUND

GEODETIC COORDINATES
12.40043 LAT UEG
106.37033 LON UEG

TABLE 20

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SOUND KNOTS	DIRECTION DEGREES (T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
63500.0	64.1	-59.7		104.5	569.2	168.5	7.4	1.000023
64000.0	62.5	-60.2		102.3	568.5	167.5	10.9	1.000023
64500.0	61.0	-60.6		100.0	567.9	166.0	11.8	1.000022
65000.0	59.5	-61.1		97.8	567.3	163.6	11.1	1.000022
65500.0	58.1	-61.6		95.7	566.7	160.4	10.6	1.000021
66000.0	56.7	-61.2		93.2	567.2	154.6	11.3	1.000021
66500.0	55.4	-60.8		90.8	567.7	149.6	12.2	1.000020
67000.0	54.0	-60.4		88.5	568.3	140.3	9.1	1.000020
67500.0	52.7	-59.9		86.2	568.9	112.6	5.2	1.000019
68000.0	51.5	-59.5		83.9	569.4	52.6	4.2	1.000019
68500.0	50.2	-59.1		81.6	570.0	5.9	6.1	1.000018
69000.0	49.1	-58.8		79.7	570.4	348.1	9.9	1.000018
69500.0	47.9	-58.6		77.8	570.7	350.8	8.9	1.000017
70000.0	46.8	-58.3		75.8	571.0	357.7	7.2	1.000017
70500.0	45.7	-58.1		74.0	571.3	10.4	5.7	1.000016
71000.0	44.6	-57.9		72.2	571.6	46.3	6.1	1.000016
71500.0	43.5	-57.6		70.4	571.9	70.5	8.2	1.000016
72000.0	42.5	-57.4		68.7	572.2	82.1	10.7	1.000015
72500.0	41.5	-57.2		67.0	572.5	86.5	12.3	1.000015
73000.0	40.5	-56.9		65.3	572.8	89.9	13.9	1.000015
73500.0	39.6	-56.7		63.7	573.1	95.4	15.0	1.000014
74000.0	38.6	-56.5		62.1	573.4	103.2	15.7	1.000014
74500.0	37.7	-56.2		60.6	573.8	110.3	16.7	1.000014
75000.0	36.9	-56.0		59.1	574.1	114.4	16.1	1.000013
75500.0	36.0	-55.8		57.7	574.4	117.7	14.6	1.000013
76000.0	35.1	-55.5		56.2	574.7	121.8	13.2	1.000013
76500.0	34.3	-55.3		54.9	575.0	109.5	11.0	1.000012
77000.0	33.5	-55.1		53.5	575.3	88.0	9.7	1.000012
77500.0	32.7	-54.8		52.2	575.6	64.5	10.1	1.000012
78000.0	31.9	-54.6		50.9	575.9	59.6	9.5	1.000011
78500.0	31.2	-54.4		49.7	576.2	52.8	8.9	1.000011
79000.0	30.5	-54.1		48.4	576.5	46.7	8.5	1.000011
79500.0	29.7	-53.9		47.3	576.8	45.5	9.5	1.000011
80000.0	29.1	-53.7		46.1	577.1	44.5	10.4	1.000010
80500.0	28.4	-53.5		45.0	577.4	44.8	11.6	1.000010
81000.0	27.7	-53.2		43.9	577.7	43.1	13.7	1.000010
81500.0	27.1	-53.0		42.9	578.0	52.3	15.9	1.000010
82000.0	26.5	-52.8		41.8	578.3	54.2	17.2	1.000009
82500.0	25.9	-52.5		40.8	578.6	55.0	15.8	1.000009
83000.0	25.3	-52.3		39.8	578.9	55.8	14.4	1.000009

STATION ALTITUDE 3989.00 FEET MSL
25 SEP. 61 0900 MDT
ASCENSION NO. 617

UPPER AIR DATA
2600020,17
WHITE SAWS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 20 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
83500.0	24.7	-52.1		38.9	579.3	58.4	13.2	1.000009
84000.0	24.1	-51.8		39.0	579.6	64.5	12.5	1.000008
84500.0	23.6	-51.6		37.0	579.9	71.2	12.0	1.000008
85000.0	23.0	-51.4		36.1	580.2	78.4	11.7	1.000008
85500.0	22.5	-51.2		35.3	580.5	80.4	12.9	1.000008
86000.0	22.0	-50.9		34.4	580.8	81.9	14.1	1.000008
86500.0	21.5	-50.7		33.6	581.1	83.1	15.4	1.000007
87000.0	21.0	-50.5		32.8	581.4	83.6	16.2	1.000007
87500.0	20.5	-50.2		32.0	581.7	82.6	15.7	1.000007
88000.0	20.0	-50.0		31.2	582.0	81.5	15.2	1.000007
88500.0	19.5	-49.8		30.5	582.3	80.3	14.7	1.000007
89000.0	19.1	-49.5		29.6	582.6	81.2	14.4	1.000007
89500.0	18.7	-49.3		29.0	582.9	83.4	14.4	1.000006
90000.0	18.2	-49.0		28.4	583.3	85.6	14.4	1.000006
90500.0	17.8	-48.7		27.7	583.6	87.8	14.3	1.000006
91000.0	17.4	-48.5		27.0	583.9	87.1	16.1	1.000006
91500.0	17.0	-48.2		26.4	584.2	86.3	18.1	1.000006
92000.0	16.6	-48.1		25.8	584.4	85.7	20.1	1.000006
92500.0	16.3	-48.2		25.2	584.3	85.5	21.6	1.000006
93000.0	15.9	-48.3		24.6	584.2	86.6	20.7	1.000005
93500.0	15.5	-48.4		24.1	584.0	87.8	19.9	1.000005
94000.0	15.2	-48.5		23.5	583.9	89.2	19.0	1.000005
94500.0	14.8	-48.6		23.0	583.8	89.3	18.5	1.000005
95000.0	14.5	-48.7		22.5	583.7	88.0	18.4	1.000005
95500.0	14.2	-48.8		22.0	583.6	86.6	18.3	1.000005
96000.0	13.8	-48.8		21.5	583.5	85.1	18.2	1.000005
96500.0	13.5	-48.9		21.0	583.3			1.000005
97000.0	13.2	-49.0		20.6	583.2			1.000005
97500.0	12.9	-49.1		20.1	583.1			1.000004
98000.0	12.6	-49.2		19.7	583.0			1.000004
98500.0	12.3	-49.3		19.2	582.9			1.000004
99000.0	12.1	-49.4		18.8	582.8			1.000004

STATION ALTITUDE 3989.00 FEET MSL
25 SLP. H1
ASCENSION NO. 017

MANDATORY LEVELS
2600020017
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 21

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5010.	21.6	7.4	40.	190.4	0.4
800.0	6728.	18.6	4.8	40.	271.5	2.7
750.0	8531.	14.2	3.8	49.	235.4	8.0
700.0	10428.	9.4	3.4	60.	229.4	16.8
650.0	12428.	3.7	.5	80.	230.2	24.6
600.0	14541.	-1.5	-7.1	60.	228.1	25.2
550.0	16809.	-2.3	-20.7	23.	266.0	20.1
500.0	19273.	-6.7	-25.3	21.	268.1	20.6
450.0	21941.	-12.7	-29.2	24.	259.0	29.5
400.0	24850.	-19.9	-34.8	25.	249.0	33.0
350.0	28037.	-26.3	-40.7	24.	248.4	43.8
300.0	31653.	-34.6	-47.1	23.	253.6	39.8
250.0	35749.	-44.4			252.9	116.3
200.0	40532.	-55.8			264.8	42.2
175.0	43296.	-59.0			257.4	58.2
150.0	46447.	-63.3			256.7	54.2
125.0	50076.	-68.7			245.1	44.8
100.0	54443.	-68.6			248.9	23.2
80.0	58818.	-66.2			216.1	6.1
70.0	61480.	-65.2			260.3	12.9
60.0	64613.	-61.0			164.5	11.3
50.0	68339.	-59.0			2.5	6.6
40.0	72955.	-56.8			91.1	14.5
30.0	78975.	-54.0			46.0	9.0
25.0	82830.	-52.2			56.2	14.0
20.0	87592.	-50.0			81.6	15.2
15.0	93795.	-48.5			89.8	16.6

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

SIGNIFICANT LEVEL DATA

26000.0155

JALLEN

TABLE 22

STATION / ALTITUDE 4051.00 FEET MSL
25 SEP. 61 0900 MDT
ASCENSION NO. 155

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
879.5	4051.0	17.8	11.6	68.0
872.0	4291.9	17.6	9.2	58.0
850.0	5011.6	18.5	11.8	65.0
832.8	5589.6	19.6	10.0	54.0
765.4	7962.2	15.6	5.5	51.0
700.0	10425.6	9.0	1.7	60.0
671.6	11547.5	5.6	-4	65.0
646.4	12570.9	2.5	-4.7	59.0
632.9	13130.8	1.0	-4.6	66.0
618.0	13760.0	.2	-6.7	51.0
587.7	15077.9	-2.8	-13.6	43.0
580.0	15421.8	-2.6	-14.9	38.0
549.4	16831.2	-4.2	-17.3	35.0
538.0	17375.2	-3.9	-17.1	35.0
500.0	19262.8	-7.8	-20.5	35.0
481.2	20240.1	-9.5	-22.4	34.0
400.0	24842.4	-20.2	-31.1	37.0
379.4	26124.7	-23.0	-33.9	36.0
358.4	27489.0	-26.3	-30.8	36.0
348.2	28173.6	-28.2	-38.3	37.0
300.0	31639.2	-35.7	-45.3	36.0
274.8	33630.9	-39.9	-49.2	36.0
250.0	35739.0	-44.3		
200.0	40552.4	-54.9		
184.0	42294.0	-58.6		
150.0	46488.6	-62.4		
140.6	47803.3	-63.2		
125.2	50140.8	-65.9		
121.6	50726.3	-64.9		
112.6	52263.8	-67.5		
107.6	53165.8	-67.8		
106.2	53426.6	-66.3		
100.0	54629.7	-66.1		
85.6	57703.9	-71.1		
81.8	58596.1	-60.7		
70.0	61723.3	-62.4		
66.4	62802.6	-61.2		
65.4	63115.1	-59.3		
58.3	65314.2	-59.6		
55.4	66544.8	-59.6		

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 51 0900 MDT
 ASCENSION NO. 155

SIGNIFICANT LEVEL DATA
 2680030150
 JALLEN
 TABLE 22 Cont'd

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR	DEWPOINT DEGREES CENTIGRADE	
50.6	60421.5	-58.7		
50.0	68668.7	-59.3		
46.3	70263.2	-58.4		
39.1	73805.7	-54.9		
35.4	75908.0	-54.6		
30.0	79415.7	-54.1		
25.2	83150.9	-50.0		
20.0	88153.3	-49.7		
14.2	95595.8	-48.5		

STATION ALTITUDE 4051.00 FEET MSL
25 SEP 61 0900 MDT
ASCENSION: 1.0. 155

UPPER AIR DATA
2600050155
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 23

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.0	879.5	17.8	11.8	68.0	1046.8	660.5	250.1	.0	1.000295
4500.0	865.6	17.9	11.0	60.0	1030.6	660.4	250.1	1.6	1.000285
5000.0	850.4	18.5	11.8	64.9	1009.5	667.4	250.1	3.4	1.000287
5500.0	835.4	19.4	10.4	55.7	989.1	668.3	250.1	5.2	1.000276
6000.0	820.7	19.9	9.3	53.5	973.7	667.6	253.6	7.2	1.000269
6500.0	806.3	18.1	8.3	52.8	959.5	666.5	249.1	9.9	1.000263
7000.0	792.0	17.2	7.3	52.2	945.6	665.5	246.8	11.8	1.000257
7500.0	778.1	16.4	6.4	51.6	931.8	664.4	245.4	13.3	1.000251
8000.0	764.4	15.5	5.5	51.1	918.4	663.4	243.0	15.0	1.000246
8500.0	750.6	14.2	4.7	53.0	904.2	661.8	240.9	16.7	1.000241
9000.0	737.1	12.8	4.0	54.8	894.2	660.2	237.4	18.3	1.000237
9500.0	723.9	11.5	3.2	56.6	882.4	658.6	234.6	19.8	1.000233
10000.0	710.9	10.1	2.4	58.4	870.8	657.0	233.5	20.9	1.000228
10500.0	698.1	8.8	1.5	60.3	859.4	655.3	233.2	22.0	1.000224
11000.0	685.3	7.3	.6	62.6	848.4	653.5	235.4	22.9	1.000220
11500.0	672.8	5.7	-2.4	64.8	837.6	651.7	237.9	24.2	1.000216
12000.0	660.3	4.2	-2.3	62.3	826.9	649.8	241.0	26.3	1.000210
12500.0	648.1	2.7	-4.4	59.4	816.3	647.9	243.5	27.2	1.000204
13000.0	636.0	1.4	-4.6	64.4	805.1	646.3	245.5	27.0	1.000201
13500.0	624.1	.5	-6.9	57.2	792.7	645.2	247.1	25.0	1.000195
14000.0	612.4	-1.3	-9.6	49.5	780.6	644.0	248.6	22.5	1.000189
14500.0	600.8	-1.5	-11.4	46.5	769.2	642.6	247.5	21.1	1.000184
15000.0	589.4	-2.6	-13.3	43.5	758.0	641.2	247.3	20.0	1.000180
15500.0	578.3	-2.7	-15.1	37.8	743.9	641.1	249.9	19.7	1.000176
16000.0	567.2	-3.3	-15.9	36.8	731.3	640.4	254.5	20.3	1.000172
16500.0	556.4	-3.8	-16.8	35.7	718.9	639.7	260.1	21.9	1.000169
17000.0	545.8	-4.1	-17.3	35.0	706.0	639.4	263.8	23.1	1.000166
17500.0	535.4	-4.2	-17.3	35.0	692.6	639.3	260.5	24.2	1.000163
18000.0	525.1	-5.2	-18.2	35.0	682.0	638.1	267.4	24.3	1.000160
18500.0	515.0	-6.2	-19.1	35.0	671.5	636.8	268.1	24.4	1.000157
19000.0	505.1	-7.3	-20.1	35.0	661.2	635.5	267.3	24.0	1.000154
19500.0	495.4	-8.2	-21.0	34.8	650.8	634.4	265.9	23.6	1.000151
20000.0	485.8	-9.1	-21.9	34.2	640.3	633.3	264.2	23.7	1.000148
20500.0	476.2	-10.1	-22.9	34.2	630.2	632.1	262.4	24.1	1.000146
21000.0	466.7	-11.3	-23.8	34.5	620.4	630.7	260.8	24.7	1.000143
21500.0	457.5	-12.4	-24.7	34.8	610.8	629.3	259.5	25.6	1.000141
22000.0	448.4	-13.6	-25.7	35.1	601.4	627.8	259.3	26.8	1.000138
22500.0	439.5	-14.8	-26.6	35.5	592.1	626.4	259.8	28.3	1.000136
23000.0	430.7	-15.9	-27.6	35.8	583.0	625.0	260.4	29.5	1.000133
23500.0	422.2	-17.1	-28.5	36.1	574.0	623.6	261.0	30.6	1.000131

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 61
ASCENSION NO. 155

UPPLR AIR DATA
2680030155
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 23 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES (TN))	SPEED KNOTS	INDEX OF REFRACTION
24000.0	413.8	-18.2	36.5	565.2	622.1	260.5	30.9	1.000129
24500.0	405.5	-19.4	36.8	556.5	620.7	258.9	30.5	1.000127
25000.0	397.4	-20.5	36.9	547.8	619.3	257.1	31.3	1.000125
25500.0	389.3	-21.6	36.5	539.0	618.0	255.3	32.9	1.000122
26000.0	381.4	-22.7	36.1	530.3	616.6	254.5	33.9	1.000120
26500.0	373.5	-23.9	36.0	521.9	615.1	253.9	34.8	1.000118
27000.0	365.8	-25.1	36.0	513.6	613.6	253.7	34.9	1.000116
27500.0	358.2	-26.3	36.0	505.5	612.1	253.8	34.6	1.000114
28000.0	350.8	-27.7	36.7	497.7	610.4	252.6	34.7	1.000112
28500.0	343.3	-28.9	36.9	489.6	608.9	250.3	35.1	1.000110
29000.0	336.0	-30.0	36.8	481.3	607.6	248.0	36.0	1.000108
29500.0	328.9	-31.1	36.6	473.2	606.2	245.7	37.3	1.000106
30000.0	321.9	-32.2	36.5	465.2	604.8	245.4	40.6	1.000105
30500.0	315.1	-33.2	36.3	457.4	603.5	245.5	44.4	1.000103
31000.0	308.4	-34.3	36.2	449.7	602.1	244.6	46.0	1.000101
31500.0	301.8	-35.4	36.0	442.2	600.7	243.6	47.2	1.000099
32000.0	295.3	-36.5	36.0	434.5	599.4	243.4	47.4	1.000097
32500.0	288.8	-37.5	36.0	427.0	598.1	243.3	47.5	1.000096
33000.0	282.5	-38.6	36.0	419.6	596.7	244.3	50.0	1.000094
33500.0	276.4	-39.6	36.0	412.3	595.4	243.3	52.8	1.000092
34000.0	270.3	-40.7	29.7	405.0	594.0	243.8	54.3	1.000091
34500.0	264.3	-41.7	21.2	397.0	592.7	243.5	55.3	1.000089
35000.0	258.4	-42.8	12.6	390.7	591.3	246.5	56.7	1.000087
35500.0	252.7	-43.8	4.1	383.0	590.0	247.6	58.2	1.000086
36000.0	247.0	-44.9		375.4	588.6	248.7	59.9	1.000084
36500.0	241.3	-46.0		370.1	587.2	248.7	61.8	1.000082
37000.0	235.8	-47.1		363.4	585.8	248.4	63.0	1.000081
37500.0	230.4	-48.2		356.7	584.4	248.4	64.1	1.000079
38000.0	225.1	-49.3		350.0	583.0	248.4	65.2	1.000078
38500.0	220.0	-50.4		343.3	581.6	248.4	66.3	1.000077
39000.0	214.9	-51.5		336.6	580.2	248.4	67.4	1.000075
39500.0	210.0	-52.6		330.0	578.8	248.4	68.5	1.000074
40000.0	205.2	-53.7		323.3	577.4	248.4	69.6	1.000073
40500.0	200.5	-54.8		316.6	576.0	248.4	70.7	1.000071
41000.0	195.8	-55.9		310.0	574.6	248.4	71.8	1.000070
41500.0	191.1	-56.9		303.3	573.2	248.4	72.9	1.000069
42000.0	186.6	-58.0		296.6	571.8	248.4	74.0	1.000067
42500.0	182.2	-58.8		290.0	570.4	248.4	75.1	1.000066
43000.0	177.8	-59.2		283.3	569.0	248.4	76.2	1.000064
43500.0	173.5	-59.7		276.6	567.6	248.4	77.3	1.000063

** AT LEAST ONE ASSUMPTION FIVE MINUTE MEANING

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 81
ASCENSION IS. 135 0900 MDT

UPPER AIR DATA
268030155
JALLEN

TABLE 23 Cont'd

GEODLTIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
44000.0	169.3	-60.1		270.9	568.6	251.4	60.9	1.000062
44500.0	165.3	-60.6		270.8	568.0	251.4	61.1	1.000060
45000.0	161.3	-61.1		264.9	567.4	251.3	61.1	1.000059
45500.0	157.4	-61.5		259.1	566.8	250.9	60.1	1.000058
46000.0	153.6	-62.0		253.4	566.2	250.5	59.1	1.000056
46500.0	149.9	-62.4		247.8	565.6	250.3	57.7	1.000055
47000.0	146.3	-62.7		242.1	565.1	250.3	56.1	1.000054
47500.0	142.7	-63.0		236.6	564.7	250.3	54.4	1.000053
48000.0	139.2	-63.4		231.3	564.2	250.3	54.0	1.000052
48500.0	135.8	-64.0		226.2	563.4	250.3	53.8	1.000050
49000.0	132.5	-64.6		221.3	562.6	250.2	53.4	1.000049
49500.0	129.2	-65.2		216.5	561.8	249.6	52.5	1.000048
50000.0	126.1	-65.7		211.8	561.1	248.9	51.5	1.000047
50500.0	123.0	-65.3		206.1	561.7	248.2	49.7	1.000046
51000.0	119.9	-65.4		201.1	561.0	247.3	47.3	1.000045
51500.0	117.0	-66.2		196.9	560.4	246.6	45.2	1.000044
52000.0	114.1	-67.1		192.9	559.3	247.2	45.2	1.000043
52500.0	111.3	-67.6		188.0	558.6	247.9	45.3	1.000042
53000.0	108.5	-67.7		184.0	558.3	249.0	43.8	1.000041
53500.0	105.8	-66.3		178.2	560.3	250.5	40.8	1.000040
54000.0	103.2	-66.2		173.7	560.4	252.3	37.7	1.000039
54500.0	100.7	-66.1		169.4	560.5	253.0	30.6	1.000038
55000.0	98.1	-66.7		165.6	559.8	254.0	23.0	1.000037
55500.0	95.7	-67.5		162.1	558.7	255.4	16.0	1.000036
56000.0	93.3	-68.3		158.7	557.5	254.4	12.5	1.000035
56500.0	91.0	-69.1		155.3	556.4	252.6	9.0	1.000035
57000.0	88.7	-70.0		152.1	555.3	247.4	7.1	1.000034
57500.0	86.5	-70.8		148.9	554.2	240.3	8.9	1.000033
58000.0	84.3	-70.3		144.8	554.9	235.7	10.8	1.000032
58500.0	82.2	-69.0		140.2	556.7	235.5	12.6	1.000031
59000.0	80.2	-67.9		136.1	558.2	237.3	14.3	1.000030
59500.0	78.2	-66.9		132.1	559.5	238.8	16.0	1.000029
60000.0	76.3	-65.9		128.2	560.9	243.5	16.4	1.000028
60500.0	74.4	-64.9		124.4	562.2	247.9	16.9	1.000028
61000.0	72.6	-63.9		120.8	563.6	250.0	14.1	1.000027
61500.0	70.8	-62.8		117.3	565.0	250.0	7.8	1.000026
62000.0	69.1	-62.1		114.0	566.0	250.0	1.4	1.000025
62500.0	67.4	-61.5		110.9	566.7	70.0	1.1	1.000025
63000.0	65.8	-60.0		107.5	568.0	70.0	2.3	1.000024
63500.0	64.2	-59.4		104.6	569.6	70.0	3.6	1.000023

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 81 0900 MDT
ASCENSION NO. 155

UPPER AIR DATA
2680030150
JALLEN

GEODETTIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 23 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES(TN))	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	62.7	-59.4		102.1	569.5	143.1	2.0	1.000023
64500.0	61.2	-59.5		99.7	569.5	190.9	5.2	1.000022
65000.0	59.7	-59.6		97.4	569.4	206.9	9.3	1.000022
65500.0	58.3	-59.6		95.1	569.3	203.9	9.7	1.000021
66000.0	56.9	-59.6		92.8	569.3	200.7	10.0	1.000021
66500.0	55.5	-59.6		90.6	569.3	198.6	10.0	1.000020
67000.0	54.2	-59.4		88.3	569.0	202.9	8.4	1.000020
67500.0	52.9	-59.1		86.1	569.9	209.3	6.7	1.000019
68000.0	51.6	-58.9		84.0	570.2	212.0	5.0	1.000019
68500.0	50.4	-58.9		82.0	570.3	193.4	3.0	1.000018
69000.0	49.2	-59.1		80.1	570.0	140.1	2.0	1.000018
69500.0	48.0	-58.8		78.1	570.3	91.2	2.7	1.000017
70000.0	46.9	-58.5		76.1	570.7	68.0	4.0	1.000017
70500.0	45.8	-58.2		74.2	571.2	57.0	5.6	1.000017
71000.0	44.7	-57.7		72.3	571.9	53.8	6.0	1.000016
71500.0	43.6	-57.2		70.4	572.5	52.7	5.6	1.000016
72000.0	42.6	-56.7		68.6	573.2	51.4	5.2	1.000015
72500.0	41.6	-56.2		66.8	573.8	53.1	4.7	1.000015
73000.0	40.6	-55.7		65.1	574.5	58.2	4.0	1.000014
73500.0	39.7	-55.2		63.4	575.1	65.1	3.4	1.000014
74000.0	38.7	-54.9		61.8	575.6	84.6	4.0	1.000014
74500.0	37.8	-54.8		60.4	575.7	100.4	6.0	1.000013
75000.0	37.0	-54.7		58.9	575.8	107.9	8.2	1.000013
75500.0	36.1	-54.7		57.5	575.9	111.1	9.7	1.000013
76000.0	35.2	-54.6		56.2	575.9	112.3	9.9	1.000013
76500.0	34.4	-54.5		54.9	576.0	113.4	10.0	1.000012
77000.0	33.6	-54.4		53.6	576.1	113.0	9.8	1.000012
77500.0	32.8	-54.4		52.3	576.2	107.2	8.2	1.000012
78000.0	32.1	-54.3		51.1	576.3	98.0	6.8	1.000011
78500.0	31.3	-54.2		49.8	576.4	86.4	5.6	1.000011
79000.0	30.6	-54.2		48.7	576.5	81.7	6.4	1.000011
79500.0	29.9	-54.0		47.5	576.7	78.0	7.2	1.000011
80000.0	29.2	-53.5		46.3	577.4	75.1	8.1	1.000010
80500.0	28.5	-52.9		45.1	578.2	72.8	9.1	1.000010
81000.0	27.9	-52.4		44.0	578.9	71.1	10.2	1.000010
81500.0	27.2	-51.8		42.8	579.6	69.6	11.3	1.000010
82000.0	26.6	-51.3		41.7	580.3	68.6	11.9	1.000009
82500.0	26.0	-50.7		40.7	581.0	62.3	12.0	1.000009
83000.0	25.4	-50.2		39.6	581.7	57.8	12.2	1.000009
83500.0	24.8	-50.0		38.7	582.0	54.2	12.2	1.000009

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

UPPER AIR DATA
268003015,
JALLEN

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 61 0900 MDT
ASCENSION NO. 155

TABLE 23 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC METER	SOUND SPEED KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (T)	SPEED KNOTS	
84000.0	24.2	-49.9		37.6	582.0	52.9	11.2	1.000008
84500.0	23.7	-49.9		36.9	582.1	51.3	10.2	1.000008
85000.0	23.1	-49.9		36.1	582.1	49.5	9.3	1.000008
85500.0	22.6	-49.9		35.3	582.1	53.0	8.8	1.000008
86000.0	22.1	-49.8		34.5	582.2	58.4	8.5	1.000008
86500.0	21.6	-49.8		33.7	582.2	64.2	8.2	1.000007
87000.0	21.1	-49.8		32.9	582.3	69.7	8.0	1.000007
87500.0	20.6	-49.7		32.1	582.3	72.6	7.9	1.000007
88000.0	20.1	-49.7		31.4	582.3	76.0	7.8	1.000007
88500.0	19.7	-49.6		30.7	582.4	79.4	7.7	1.000007
89000.0	19.2	-49.6		30.0	582.5	80.4	7.9	1.000007
89500.0	18.8	-49.5		29.3	582.6	79.7	8.4	1.000007
90000.0	18.4	-49.4		28.6	582.7	79.1	8.9	1.000006
90500.0	18.0	-49.3		27.9	582.8	78.5	9.5	1.000006
91000.0	17.5	-49.2		27.3	582.9	75.3	10.6	1.000006
91500.0	17.1	-49.2		26.7	583.1	72.6	11.8	1.000006
92000.0	16.8	-49.1		26.0	583.2	70.4	13.0	1.000006
92500.0	16.4	-49.0		25.4	583.3			1.000006
93000.0	16.0	-48.9		24.9	583.4			1.000006
93500.0	15.6	-48.8		24.3	583.5			1.000005
94000.0	15.3	-48.8		23.7	583.6			1.000005
94500.0	14.9	-48.7		23.2	583.7			1.000005
95000.0	14.6	-48.6		22.6	583.8			1.000005
95500.0	14.3	-48.5		22.1	583.9			1.000005

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 61
0900 MDT
ASCENSION, NO. 155

MANDATORY LEVELS
2680030135
JALLEN

COORDINATE COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 24

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5000.	18.5	11.8	65.	250.1	3.4
800.0	6718.	17.7	7.9	53.	247.8	11.0
750.0	8521.	14.1	4.7	53.	240.7	16.8
700.0	10416.	9.0	1.7	60.	232.9	21.9
650.0	12410.	3.0	-4.1	60.	243.1	27.3
600.0	14520.	-1.6	-11.0	40.	247.4	21.0
550.0	16742.	-4.2	-17.3	35.	262.4	22.6
500.0	19237.	-7.8	-20.5	35.	266.0	23.8
450.0	21899.	-13.4	-25.5	35.	259.2	26.6
400.0	24802.	-20.2	-31.1	37.	257.7	30.8
350.0	28002.	-27.9	-38.0	37.	252.4	34.7
300.0	31578.	-35.7	-45.3	30.	243.5	47.4
250.0	35662.	-44.3			248.0	58.9
200.0	40456.	-54.9			250.3	70.0
175.0	43222.	-59.5			251.1	61.9
150.0	46365.	-62.4			250.3	57.8
125.0	50031.	-65.8			248.7	51.2
100.0	54463.	-66.1			253.2	29.0
80.0	58845.	-67.8			237.3	14.3
70.0	61515.	-62.4			250.0	5.3
60.0	64667.	-59.5			205.3	8.2
50.0	68414.	-59.3			163.3	2.5
40.0	73037.	-55.4			62.0	3.7
30.0	79080.	-54.1			78.8	7.0
25.0	82955.	-50.0			55.4	12.3
20.0	87744.	-49.7			76.0	7.7
15.0	93935.	-48.7				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

DATE
FILME